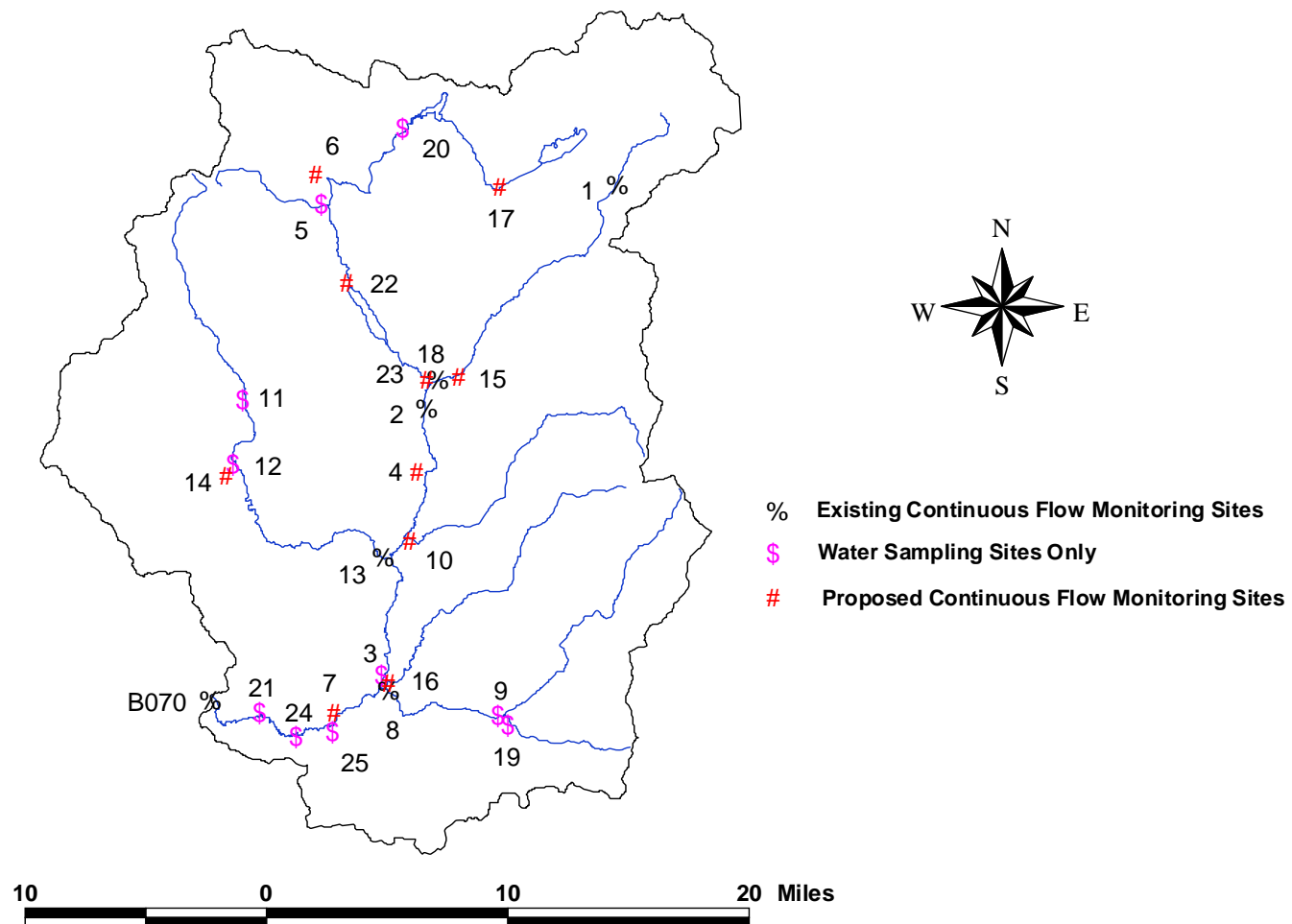


# Sites Map



# Dissolved Oxygen

- The Washington state criteria for dissolved oxygen require daily minimum concentrations to be greater than **8.0 mg/L** for the types of streams in the LSR drainage basin.
- Out of **180** measurements, **9** readings (at 7 different locations) were lower than this criteria.



# pH update

- The State of Washington criteria for pH ranges from 6.5 to 8.5.
- Out of 176 samples, 18 measurements (at 7 sites) were higher than 8.5.
- Out of 176 samples, 1 measurement was lower than 6.5.



# TP update

- No Washington State surface water criterion has been established for phosphorus although historically US EPA recommended **100 ug/L** as the upper limit of total phosphorus.
- Out of **161** samples, **9** samples (at five sites) were higher than 100 ug/L (0.1mg/L).



# Fecal Coliform

- The State of Washington Class A freshwater criteria for fecal coliform requires that the geometric mean value for fecal coliform colonies(c) not exceed **100 colonies/100 mL** of water and not more than **10 percent** of all samples collected and used for calculating the geometric mean value can exceed **200 colonies/100 mL**.

# Fecal Coliform Samples

- Out of 184 samples, 19 samples (at eight sites) exceeded 200 colonies/100 mL. Four of them occur at one site (Site 16)
- Thirty one (31) samples exceeded 100 colonies/100 mL. Five of them occur at Site 16 and another five at Site 7.
- The maximum values are >1730, >1610, >1200, 1140, 840, 730, 600, and 580.



# NO<sub>2</sub>+NO<sub>3</sub>

- The US EPA recommends a limit for drinking water supply that is 10 mg/L for nitrate but these values are seldom exceeded in surface water supplies.
- There is a current effort by the US EPA to implement a national strategy for developing nutrient information and working with states and tribes to adopt nutrient criteria as part of State water quality standards.



# NO<sub>2</sub>+NO<sub>3</sub>

- Most of our sites had Nitrogen concentrations less than **2mg/L**. This is consistent with existing data showing the average total nitrogen concentration at Ecology's long-term 55B070 station since 1993 is **1.21 mg/L**.
- However, Site 13 (Dragoon) was about **2-3 mg/L** and Site 7 (Dartford Creek) was about **8-9 mg/L**.



# Water temperature

- Water quality standards set by the State of Washington requires water temperatures to be less than or equal to 18°C.
- Several Sites show water temperatures higher than this criteria during certain times of the year.
- We haven't downloaded and analyzed data from all sites, so we don't know exactly how many sites have water temperature issues.

# TSS

- While Washington State does not have a specific standard for suspended sediments, many pollutants (e.g., phosphorus) are associated with sediment.
- Most of our sites have TSS **less than 15 mg/L**. Out of 161 measurements, only **10** samples have TSS measurements **above** 15 mg/L (Site 7).



# Pesticides/Herbicides

- Spring sampling at 8 locations—
  - Carbamate Pesticides
  - Herbicides
  - OP & ON Pesticides
- Only 3 detections: 2,4-D and Hexazinone
- All at low concentrations